Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

ANR Pipeline Co. - Patterson Terminal
Part 70 Permit Renewal
ANR Pipeline Company
Patterson, St. Mary Parish, Louisiana
Agency Interest Number: 16816
Activity Number: PER20060001
Draft Permit 2660-00059-V3

I. APPLICANT:

Company:
ANR Pipeline Company
1001 Louisiana Street
Houston, TX 77002

Facility:
Patterson Terminal
3609 LA Highway 90 West, Patterson, St. Mary Parish, Louisiana
Approximate UTM coordinates are 632.12 kilometers East and 3593.03 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS:

ANR Pipeline Company's Patterson Terminal is an existing natural gas liquid stabilization, storage, and loading facility. The Patterson Terminal currently operates under Permit No. 2660-00059-V2, issued November 14, 2005.

This is a Part 70 operating permit modification for the facility.

The facility operates under the initial Title V permit which will remain effective until replaced by this Part 70 permit modification. This permit includes the following sources:

Permit #	Units or Sources	Date Issued
2260-00059-V0	01 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl 6A Wet Oil Tank 750 bbl 6B Wet Oil Tank 750 bbl 7A Dry Oil Tank 2,000 bbl 7B Dry Oil Tank 2,000 bbl 10 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl 12A Brine Tank 1,000 bbl 12B Brine Tank 1,000 bbl 13 Low Pressure Flare 14 High Pressure Flare 15 Waukesha Emergency Generator 825 hp 16 Caterpillar Flash Gas Compressor 845 hp	November 5, 2001

	E1 Fugitive Emissions	

An application for a Part 70 permit modification addressing the facility changes is still under review by the department. This application includes the following sources:

Permit #	Units or Sources
2260-00059-V1	EQT 02 1 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl EQT 03 5 Barge Loading EQT 04 10 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl EQT 05 13 Low Pressure Flare EQT 06 14 High Pressure Flare EQT 07 15 Waukesha Emergency Generator 825 hp EQT 08 17 Firewater Pump Engine 500 hp FUG 01 E1 Fugitive Emissions GRP 02 Total Facility

An application for a Part 70 permit modification addressing the facility changes is still under review by the department. This application includes the following sources:

Permit #	Units or Sources
2260-00059-V2	EQT 02 1 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl EQT 03 5 Barge Loading EQT 04 10 Natural Gas Condensate/Crude Oil Storage Tank 55,000 bbl EQT 05 13 Low Pressure Flare EQT 06 14 High Pressure Flare EQT 07 15 Waukesha Emergency Generator 825 hp EQT 08 17 Firewater Pump Engine 500 hp FUG 01 E1 Fugitive Emissions GRP 02 Total Facility

III. PROPOSED PERMIT / PROJECT INFORMATION:

Proposed Permit

A permit application and Emission Inventory Questionnaire were submitted by ANR Pipeline Co. on April 12, 2006, requesting a Part 70 operating permit renewal.

Project description

The Patterson Terminal receives natural gas liquids (condensate) under pressure from either offshore production facilities (un-stabilized) or from the Pelican Processing Plant (stabilized). Under normal operating conditions, the adjacent Pelican Processing Plant stabilizes the condensate from off-shore producers and sends the liquids under pressure to the Patterson Terminal. In pressure reduction steps, volatile hydrocarbons are flashed off

and sent to high pressure and low pressure flares. The Patterson Terminal also has the capability to receive un-stabilized condensate from the producers, which will result in additional vapors that will be routed to the flares during the pressure reduction steps.

In separation steps, saltwater is removed from the condensate and stored in a 1,000 barrel saltwater tank prior to routing to injection wells. Condensate is stored in two 55,000 barrel external floating roof tanks. Condensate is typically sent from the storage tanks through a pipeline for transportation; however, the facility also has the capacity for barge loading of the condensate for transportation to sales.

ANR pipeline proposes to modify the permit to represent changes at the Patterson Terminal due to the updated emission factors used for calculating emissions.

Permitted Air Emissions

Estimated changes in permitted emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM_{10}	3.94	3.07	- 0.87
SO_2	0.30	0.24	- 0.06
NO_X	75.28	59.14	-16.14
CO	145.90	113.60	-32.30
VOC *	247.14	237.51	- 9.63

* VOC LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	After
Benzene	3.42
Toluene	4.25
Ethyl Benzene	0.97
Xylene	3.89
n-Hexane	7.08
Formaldehyde	0.13
Total	19.74
Other VOC (TPY):	217.77

Prevention of Significant Deterioration Applicability

Prevention of Significant Deterioration (PSD) does not apply to the Patterson Terminal. Under PSD applicability rules, the terminal must be either an existing major source, or the modification itself must exceed the major source threshold of 250 tpy. The maximum CO emissions for the terminal were 113.60 tpy, which is less than 250 tpy. The maximum VOC emissions for this Title V renewal is 237.51 tpy. Federally enforceable condition is used to limit the natural gas liquid throughput, therefore, maintains the terminal a minor source of PSD. Therefore, PSD does not apply

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, Compliance Assurance Monitoring Rule (CAM) and New Source Performance Standards (NSPS). National Emission Standards for Hazardous Air Pollutants (NESHAP) and Prevention of Significant Deterioration (PSD) do not apply.

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

MACT requirements

Maximum Achievable Control Technology (MACT) analysis is not required for this permit renewal because the facility is a minor source Of HAPs.

Air Modeling Analysis

Louisiana Toxic Air Pollutant (LTAP) dispersion modeling is not required for this permit renewal because the facility is a minor source of HAPs.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the draft Part 70 permit.

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable

terms, conditions and standards are provided in the Facility Specific Requirements Section of the draft permit.

IV. Periodic Monitoring

A federally enforceable condition requires ANR Pipeline to limit the total natural gas liquid throughput to 5,570,000 barrels per year and total unstable natural gas liquid to 1.3 MM barrel per year. Records of the total amount of volume throughput (barrels) each month, as well as the total volume throughput (barrels) for the last twelve months shall be kept on-site and available for inspection by the Office of Environmental Compliance, Surveillance Division. A report of the volume throughput (barrels) shall be submitted to the Office of Environmental Compliance, Enforcement Division, due annually by the 31st of March for the preceding calendar year.

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V. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
AI 16816	Chemical Accident Prevention and Minimization of Consequences [LAC 33:III.5901]	DOES NOT APPLY. The Patterson Terminal contains no sources which produce, handle, process, or store substances listed in LAC 5907.A Table A in quantities greater than the listed threshold.
	Chemical Accident Prevention Provisions [40 CFR 68]	DOES NOT APPLY. The Patterson Terminal contains no sources which produce, handle, process, or store substances listed in 40 CFR 68.130 in quantities greater than the listed threshold.
EQT 2	NSPS Subpart K – Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commences after June 11, 1973 and Prior to May 19, 1978. [40 CFR 60.110]	DOES NOT APPLY. Storage tank was constructed prior to June 11, 1973.
	NSPS Subpart Ka – Standards of Performance for Storage Vessels for Petroleum liquids for Which Construction, Reconstruction, or Modification Commences after May 18, 1978 and Prior to July 23, 1984. [40 CFR 60.110a]	DOES NOT APPLY. Storage tank was constructed prior to May 18, 1978.
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tank was constructed prior to July 23, 1984.

VI. Streamlined Requirements

Unit or Plant Site	Programs Being Streamlined	Stream Applicability	Overall Most Stringent Program
Patterson Terminal	Not Applicable		

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VII. Glossary

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

Carbon Black - A black colloidal substance consisting wholly or principally of amorphous carbon and used to make pigments and ink.

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Duct Burner – A device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Federally Enforceable Specific Condition - A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Heat Recovery Steam Generator (HRSG) – A steam generator that recovers exhaust heat from a gas turbine, and provides economizing and steam generation surfaces.

Hydrogen Sulfide (H_2S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

National Emission Standards for Hazardous Air Pollutants (NESHAP) –Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

New Source Performance Standards (NSPS) – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

New Source Review (NSR) - A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$ 10 tons per year of any toxic air pollutant; $\geq$ 25 tons of total toxic air pollutants; and $\geq$ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10}- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Selective Catalytic Reduction (SCR) – A noncombustion control technology that destroys NO_X by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_X into molecular nitrogen and water.

Sulfur Dioxide (SO_2) – An oxide of sulphur.

TAP - Toxic Air Pollutant - LDEQ acronym for air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3

Title V permit – See Part 70 Operating Permit.

"Top Down" approach – An approach which requires use of the most stringent control technology found to be technically feasible and appropriate based on environmental, energy, economic, and cost impacts.

Turbine – A rotary engine in which the kinetic energy of a moving fluid is converted into mechanical energy by causing a bladed rotor to rotate.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.